

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of the claims in this application.

Listing of the Claims:

1. (Original) A process for preparing a nickel(0)-phosphorus ligand complex comprising at least one nickel central atom and at least one phosphorus ligand, which comprises reducing a nickel(II)-ether adduct in the presence of at least one phosphorus ligand selected from the group consisting of phosphites and phosphonites and phosphines and phosphinites with three aromatic substituents.
2. (Original) The process according to claim 1, wherein the nickel(II)-ether adduct comprises an ether which is selected from the group consisting of tetrahydrofuran, dioxane, diethyl ether, diisopropyl ether, dibutyl ether, ethylene glycol dialkyl ether, diethylene glycol dialkyl ether and triethylene glycol dialkyl ether.
3. (Canceled)
4. (Currently amended) The process according to ~~any of claims 1 to 3~~ claim 1, wherein the phosphorus ligand ~~stems is obtained~~ is obtained from a ligand solution which ~~has already been~~ was used as a catalyst solution in hydrocyanation reactions.

5. (Currently amended) The process according to ~~any of claims 1 to 4~~ claim 1, wherein the reducing agent is selected from the group consisting of metals which are more electropositive than nickel, metal alkyls, electrical current, complex hydrides and hydrogen.

6. (Currently amended) The process according to ~~any of claims 1 to 5~~ claim 1, wherein the reduction is carried out in the presence of a solvent which is selected from the group consisting of organic nitriles, aromatic or aliphatic hydrocarbons and mixtures thereof.

7. (Currently amended) The process according to ~~any of claims 1 to 6~~ which claim 1, wherein reducing the nickel(II)-ether adduct comprises the following process steps:

preparing a solution or suspension of the at least one nickel(II)-ether adduct and of the at least one phosphorus ligand in a solvent under inert gas,

stirring the solution or suspension ~~stemming from process~~ from step (1) at a temperature of from 20 to 120°C for a period of from 1 minute to 24 hours for precomplexation,

adding the reducing agent at a temperature of from 20 to 120°C to the solution or suspension ~~stemming from process~~ from step (2), and

stirring the solution or suspension ~~stemming from process~~ from step (3) at a temperature of from 20 to 120°C.

8. (Currently amended) A mixture comprising nickel(0)-phosphorus ligand complexes, obtainable by a process according to ~~any of claims 1 to 7~~ claim 7.

9. (Currently amended) The use of the mixtures comprising nickel(0)-phosphorus ligand complexes according to claim 8 in the hydrocyanation and isomerization of alkenes ~~and or~~ in the hydrocyanation and isomerization of unsaturated nitriles.

10. (Currently amended) ~~A~~ The process for preparing a nickel(0)-phosphorus ligand complex according to any of claims 1 to 9, which comprises claim 1, wherein the nickel(II)-ether adduct is obtained by dissolving a nickel(II) halide in water, admixing with an ether and a diluent, ~~if appropriate with stirring, and then~~ to form a mixture, followed by removing water and any excess ether.

11. (Original) The process according to claim 10, wherein the nickel(II) halides are selected from the group consisting of nickel(II) chloride, nickel(II) bromide and nickel(II) iodide.

12. (Currently amended) The process according to claim 10 ~~or 11~~, wherein the ~~nickel(II)-ether adduct is prepared by a process for removing water from a mixture comprising the corresponding aqueous nickel(II) halide and the corresponding ether, by admixing the mixture with a diluent whose~~ has a boiling point, in the case that the diluent ~~mentioned~~ does not form an azeotrope with water under the pressure conditions of ~~the a~~ a distillation ~~mentioned below,~~ that is higher than the boiling point of water and is liquid at this boiling point of water, or which forms an azeotrope or heteroazeotrope with water under the pressure and temperature conditions of the distillation mentioned below, and distilling the mixture comprising the aqueous nickel(II) halide, the ether and the diluent to remove water or the azeotrope mentioned or the heteroazeotrope mentioned from this the mixture to obtain an anhydrous mixture comprising nickel(II) halide and said diluent.

13. (Currently amended) The process according to claim 12, wherein the diluent is an organic diluent ~~having at least one~~ nitrile group.

14. (Currently amended) The process according to ~~any of claims 10 to 13~~ claim 10, wherein an ether is used which is selected from the group consisting of tetrahydrofuran, dioxane, diethyl ether, diisopropyl ether, dibutyl ether, ethylene glycol dialkyl ether, diethylene glycol dialkyl ether and triethylene glycol dialkyl ether.

15. (New) The process according to claim 12, wherein an ether is used which is selected from the group consisting of tetrahydrofuran, dioxane, diethyl ether, diisopropyl ether, dibutyl ether, ethylene glycol dialkyl ether, diethylene glycol dialkyl ether and triethylene glycol dialkyl ether.

16. (New) A process for preparing a nickel(0)-phosphorus ligand complex comprising at least one nickel central atom and at least one phosphorus ligand, which comprises reducing a nickel(II)-ether adduct in the presence of a bidentate phosphorus ligand.

17. (New) The process according to claim 16, wherein the nickel(II)-ether adduct comprises an ether which is selected from the group consisting of tetrahydrofuran, dioxane, diethyl ether, diisopropyl ether, dibutyl ether, ethylene glycol dialkyl ether, diethylene glycol dialkyl ether and triethylene glycol dialkyl ether.

18. (New) The process according to claim 16, wherein reducing the nickel(II)-ether adduct comprises the following process steps;

preparing a solution or suspension of the at least one nickel(II)-ether adduct and of the at least one phosphorus ligand in a solvent under inert gas,

stirring the solution or suspension from step (1) at a temperature of from 20 to 120°C for a period of from 1 minute to 24 hours for precomplexation,

adding the reducing agent at a temperature of from 20 to 120°C to the solution or suspension from step (2), and

stirring the solution or suspension from step (3) at a temperature of from 20 to 120°C.

19. (New) The use of the nickel(0)-phosphorus ligand complex according to claims 18 in the hydrocyanation and isomerization of alkenes or in the hydrocyanation and isomerization of unsaturated nitriles.